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Glassfish v3.1 GMS configuration changes

ASArch Review

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GMS Configuration one pager

- GMS Configuration document



Cluster element in domain.xml

V2.x

cluster element

@heartbeat-enabled

@heartbeat-address

@heartbeat-port

prop gms-bind-interface-address

V3.1

cluster

@gms-enabled

@gms-multicast-address

@gms-multicast-port

@gms-bind-interface-address

prop GMS_LISTENER_PORT



group-management-service element in domain.xml

V2.x

```
config
  group-management-service
    @ping-protocol-timeout-in-millis

    @fd-protocol-timeout-in-millis
    @fd-protocol-max-tries
    @ping-protocol-timeout-in-millis
    prop failure-detection-tcp-retransmit-timeout

    @merge-protocol-max-interval-in-millis
    @merge-protocol-min-interval-in-millis
```

V3.1

```
config
  group-management-service
    @group-discovery-timeout-in-millis
    failure-detection
      @heartbeat-frequency-in-millis
      @max-missed-heartbeats
      @verify-failure-waittime-in-millis
      @verify-failure-connect-timeout-in-millis
```



Rationale for GMS attribute/property on Cluster

- Group-management-service attribute/property can be shared between clusters
- Place non-shareable gms attribute/props on cluster.

Cluster @name=*cluster1*
@configref=*std-cluster-config*

Config @name=*std-cluster-config*
group-management-service

Cluster @name=*cluster2*
@configref=*std-cluster-config*



GMS cluster properties set per instance

- Set cluster level gms attribute/property to a symbolic token value so it can be set per instance.
 - Property GMS_LISTENER_PORT set to `#{GMS_LISTENER_PORT-clustername}`
 - `@gms-bind-interface-address` set to `#{GMS_BIND_INTERFACE_ADDRESS-clustername}`
- DAS can belong to multiple clusters
 - Above convention allows DAS to specify appropriate values per cluster it is joining.



Configuring GMS_LISTENER_PORT

- Only necessary to set when running multiple clustered instances on one machine
- `asadmin create-local-instance --cluster myCluster --systemproperties "HTTP_LISTENER_PORT=38080:..... :GMS_LISTENER_PORT-myCluster=9390" instance1`
- `asadmin create-local-instance --cluster myCluster --systemproperties "HTTP_LISTENER_PORT=37080:..... :GMS_LISTENER_PORT-myCluster=9490" instance2`



Asadmin CLI

- V2.x
asadmin create-cluster
 --heartbeat-port --heartbeat-address
- V3.1
asadmin create-cluster
 --multicast-port --multicast-address



Reference

- GMS Config document

